

What Is Claimed Is:

1. An apparatus for placing multiple sutures during anastomosis of physiological vessels, said apparatus comprising:

a crown comprising:

a plurality of strands, each strand of said plurality of strands having a first end and a second end, each said strand having a first portion and a second portion adjacent said first end and said second end, respectively;

at least one circular band joining together said plurality of strands adjacent said first portion of each said wire strand;

each said strand forming a point in said second end; and

each said strand forming a hook adjacent said second portion for attachment to at least one physiological vessel during anastomosis of physiological vessels.

2. The apparatus of claim 1 further comprising means for retaining each said hook of said plurality of

strands in a first position for insertion of said second portion of said crown into at least one physiological vessel.

3. The apparatus of claim 2 further comprising means for deploying each said hook second portion from said first position to a second position for securing each said hook to at least one physiological vessel during anastomosis of vessels.

4. The apparatus of claim 3 wherein said retaining means is a retaining ring.

5. The apparatus of claim 4 wherein said deploying means is removal of said retaining ring.

6. The apparatus of claim 5 wherein said removal of said retaining ring is accomplished by cutting said retaining ring.

7. The apparatus of claim 2 wherein said retaining means is an articulating portion on said strand, wherein said articulating portion allows said

hook to be retained by positioning said hook around said first end of said strand and deployed by disengaging said hook from said strand.

8. A method for placing multiple sutures during anastomosis of physiological vessels, said method comprising:

providing a crown comprising:

a plurality of strands, each strand of said plurality of strands having a first end and a second end, each said strand having a first portion adjacent said first end and said second end, respectively;

at least one circular band joining together said plurality of strands adjacent said first portion of each said strand; and

each said strand forming a hook adjacent said second end with a point at said second end;

attaching a first physiological vessel to said crown; and

attaching a second physiological vessel to said crown such that said first physiological vessel and said second physiological vessel are substantially joined to one another.

9. An apparatus for placing multiple sutures during anastomosis of physiological vessels, said apparatus comprising:

a body containing multiple suture wires;
a mandrel having a die surface corresponding to said multiple suture wires, wherein said body and mandrel are positioned relative to a first physiological vessel and a second physiological vessel such that at least a portion of said first physiological vessel and at least a portion of said second physiological vessel are positioned between said body and said mandrel, said suture wires are forced from said body through said at least a portion of said first physiological vessel, off said die surface and through said at least a portion of said second physiological vessel to form multiple sutures.

10. The apparatus of claim 9 further comprising means for removing said body from said first vessel and said second vessel.

11. The apparatus of claim 10 wherein said body removing means is a hinged opening.

12. The apparatus of claim 9 further comprising means for removing said mandrel from said first vessel and said second vessel.

13. The apparatus of claim 12 wherein said mandrel is inflatable and said mandrel removing means is a catheter connected to said mandrel.

14. A method for placing multiple sutures during anastomosis of physiological vessels, said method comprising:

providing an apparatus having a body containing multiple suture wires and a mandrel having a die surface;

positioning said apparatus relative to a first physiological vessel and a second physiological vessel, such that at least a portion of said first physiological vessel and at least a portion of said second physiological vessel are contained between said body and said mandrel; and

placing multiple sutures by forcing said multiple suture wires from said body through said at least a portion of said first physiological vessel, off said die surface of said mandrel, and through said at least a portion of said second physiological vessel to form multiple sutures.

15. The method of claim 14 further comprising the method step of removing said body from said first physiological vessel and said second physiological vessel.

16. The method of claim 14 further comprising the method step of removing said mandrel from said first physiological vessel and said second physiological vessel.

17. A method for placing multiple sutures during anastomosis of physiological vessels, said method comprising:

providing a crown comprising:

a plurality of strands, each strand of said plurality of strands having a first end and a second

end, each said strand having a first portion adjacent said first end and said second end, respectively;

at least one circular band joining together said plurality of strands adjacent said first portion of each said strand; and

each said strand forming a hook adjacent said second end with a point at said second end;

attaching a first physiological vessel to said crown by placing said first vessel within said crown and evertting one end of said first vessel over said hooks; and

attaching a second physiological vessel to said crown such that said first physiological vessel and said second physiological vessel are substantially joined to one another.